

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A network switch comprising:
a backplane to carry data traffic of multiple types ~~using a single, internal cell format;~~ and
a plurality of interface cards coupled to the backplane via multiple links, the interface cards coupled to receive multiple channels of network traffic from external sources, the plurality of interface cards to receive one or more channels of data according to a time division multiplexed (TDM) protocol and one or more channels of data according to a second protocol, the interface cards to route TDM traffic to one or more selected links based on a corresponding destination interface card for transmission over the backplane and to route traffic of the second protocol to one or more links to looped back to a source interface card via the backplane ~~convert data received according to the TDM protocol and the data received according to the second protocol to the internal cell format and to route the channels of data for asynchronous transmission over the backplane using the single internal cell format to one or more predetermined interface cards coupled to the backplane within the network switch, wherein the cell format comprises one or more slots for TDM traffic, one or more slots for non-TDM traffic and one or more slots for overhead.~~

2. (Canceled)

3. (Original) The network switch of claim 1 wherein the second protocol comprises a network traffic protocol.

4. (Original) The network switch of claim 3 wherein the second protocol comprises an asynchronous transfer mode (ATM) protocol.

5. (Original) The network switch of claim 3 wherein the second protocol comprises an internet protocol (IP).

6. (Currently Amended) An interface card comprising:

a backplane interface with a plurality of links to transmit and receive data over a backplane ~~using a single, internal cell format, wherein the cell format comprises one or more slots for TDM traffic, one or more slots for non-TDM traffic and one or more slots for overhead;~~

a network interface to transmit and receive multiple channels of network traffic from external sources, the multiple channels of network traffic to include one or more channels of data according to a time division multiplexed (TDM) protocol and one or more channels of data according to a second protocol;

~~conversion circuitry to convert the TDM data and the second protocol data to the internal cell format; and~~

a time slot management circuit coupled between the backplane interface and the network interface, the time slot management circuit to route the channels of data over the backplane to one or more predetermined destinations, wherein TDM traffic is routed to one or more selected links based on a corresponding destination interface card for transmission over the backplane and traffic of the second protocol is routed to one or more links to be looped back to a source interface card via the backplane.

7. (Canceled)

8. (Original) The interface card of claim 6 wherein the second protocol comprises a network traffic protocol.

9. (Original) The interface card of claim 8 wherein the second protocol comprises an asynchronous transfer mode (ATM) protocol.

10. (Original) The interface card of claim 8 wherein the second protocol comprises an internet protocol (IP).

11. (Currently Amended) A method comprising:

receiving multiple channels of network traffic from external sources via a network interface of an interface card, wherein the multiple channels of network traffic to include one or more channels of data according to a time division multiplexed (TDM) protocol and one or more channels of data according to a second protocol;

~~—converting the TDM data and the second protocol data to an internal cell format,
wherein the cell format comprises one or more slots for TDM traffic, one or more slots
for non-TDM traffic and one or more slots for overhead; and~~

routing the channels of data in the internal cell format via an asynchronous
backplane connection to one or more predetermined destinations, wherein TDM traffic is
routed to one or more selected links based on a corresponding destination interface card
for transmission over the backplane and traffic of the second protocol is routed to one or
more links to be looped back to a source interface card via the backplane.

12. (Canceled)

13. (Original) The method of claim 11 wherein the second protocol comprises
a network traffic protocol.

14. (Original) The method of claim 13 wherein the second protocol comprises
an asynchronous transfer mode (ATM) protocol.

15. (Original) The method of claim 13 wherein the second protocol comprises
an internet protocol (IP).

16. (Currently Amended) An apparatus comprising:
means for receiving multiple channels of network traffic from external sources via
a network interface of an interface card, wherein the multiple channels of network traffic

to include one or more channels of data according to a time division multiplexed (TDM) protocol and one or more channels of data according to a second protocol;

~~means for converting the TDM data and the second protocol data to an internal cell format, wherein the cell format comprises one or more slots for TDM traffic, one or more slots for non-TDM traffic and one or more slots for overhead; and~~

means for routing the channels of data in the internal cell format via an asynchronous backplane connection to one or more predetermined destinations, wherein TDM traffic is routed to one or more selected links based on a corresponding destination interface card for transmission over the backplane and traffic of the second protocol is routed to one or more links to be looped back to a source interface card via the backplane.

17. (Original) The apparatus of claim 16 wherein the second protocol comprises a network traffic protocol.

18. (Original) The apparatus of claim 17 wherein the second protocol comprises an asynchronous transfer mode (ATM) protocol.

19. (Original) The apparatus of claim 17 wherein the second protocol comprises an internet protocol (IP).

20. (Original) The network switch of claim 1 wherein one or more of the interface cards receives electrical signals to communicate the network traffic.

21. (Original) The network switch of claim 20 wherein one or more of the interface cards receives optical signals to communicate the network traffic.

22. (Original) The network switch of claim 21 wherein the optical signals comprise SONET-framed data.

23. (Original) The network switch of claim 20 wherein one or more of the predetermined interface cards transmits electrical signals.

24. (Original) The network switch of claim 23 wherein one or more of the predetermined interface cards transmits optical signals.

25. (Original) The network switch of claim 24 wherein the optical signals comprise SONET-framed data.

26. (Original) The interface card of claim 6 wherein the network interface receives one or more channels of network traffic as electrical signals.

27. (Original) The interface card of claim 6 wherein the network interface receives one or more channels of network traffic as optical signals.

28. (Original) The interface card of claim 27 wherein the optical signals comprise SONET-framed data.

29. (Original) The network switch of claim 1 wherein the interface cards convert the received data to an internal cell format for transmission over the backplane.

30. (Original) The interface card of claim 6 wherein the network interface circuit converts the received data to an internal cell format for transmission over the backplane.

31. (Original) The method of claim 11 further comprising converting the data according to a time division multiplexed (TDM) protocol and the data according to a second protocol to an internal cell format for transmission over the backplane.

32. (Original) The apparatus of claim 16 further comprising means for converting the data according to a time division multiplexed (TDM) protocol and the data according to a second protocol to an internal cell format for transmission over the backplane.

33. (Original) The network switch of claim 1 wherein each of the plurality of interface cards further comprises a plurality of buffers coupled with each of the other interface cards.

34-40. (Canceled)

41. (New) The network switch of claim 1 wherein the interface cards further to convert data received according to the TDM protocol and the looped back data received according to the second protocol to the internal cell format and to route the channels of data for asynchronous transmission over the backplane using the single internal cell format to one or more predetermined interface cards coupled to the backplane within the network switch, wherein the cell format comprises one or more slots for TDM traffic, one or more slots for non-TDM traffic and one or more slots for overhead.

42. (New) The interface card of claim 6 further comprising conversion circuitry to convert the TDM data and the second protocol data to the internal cell format.

43. (New) The method of claim 11 further comprising converting the TDM data and the second protocol data to an internal cell format, wherein the cell format comprises one or more slots for TDM traffic, one or more slots for non-TDM traffic and one or more slots for overhead.

44. (New) The apparatus of claim 16 further comprising means for converting the TDM data and the second protocol data to an internal cell format, wherein the cell format comprises one or more slots for TDM traffic, one or more slots for non-TDM traffic and one or more slots for overhead.